WHAT IS CLAIMED IS:

1. An encrypted data signal encrypting a copy-controlled data signal, wherein the data signal contains superimposed thereto as a digital watermark identification data identifying the data signal as an encrypted signal.

2. An encrypted data signal as described in claim 1, wherein the data signal is either a "No more copy" signal or a "Never copy" signal.

3. An encrypted data signal as described in claim 1, wherein the digital watermark further contains type data indicating a type of data storage medium recording the encrypted data signal.

4. A data storage medium recording an encrypted data signal as described in claim 1.

5. A data storage medium as described in claim 4, further recording an encrypted first key and an encrypted second key,

the first key used for encrypting the data signal having a superimposed digital watermark, and

the second key used for encrypting the first

key.

6. A data signal playback apparatus comprising:

a reader for reading an encrypted data signal from a data storage medium as described in claim 4;

an encryption state detector for detecting that the encrypted data signal read by the reader is encrypted;

a decryption unit for decrypting the encrypted data signal and extracting the data signal with superimposed digital watermark;

a digital watermark decoder for extracting the digital watermark from the data signal decrypted by the decryption unit, and identifying content of the identification data; and

a playback controller for comparing the state detected by the encryption state detector and the state indicated by the identification data detected by the digital watermark decoder, and prohibiting playback of the data signal if said states do not match.

7. A data signal playback apparatus as described in claim 6, wherein the encryption state detector determines the encrypted data signal is encrypted when the decryption unit can extract a data signal.

8. A data signal playback apparatus as described in claim 6, wherein the digital watermark further contains type data indicating a type of data storage medium recording the encrypted data signal;

the data signal playback apparatus further comprising a type detector for determining the data storage medium type, and

the playback controller permits data signal playback when the data storage medium type declared by the type data matches the data storage medium type identified by the type detector.

9. A data signal playback apparatus as described in claim 6, wherein the data storage medium further records an encrypted first key and an encrypted second key, the first key used for encrypting the data signal having a superimposed digital watermark, and the second key used for encrypting the first key, and

the decryption unit has a third key used for encrypting the second key and specifically assigned to the data signal playback apparatus,

decrypts the encrypted second key using the third key to obtain the second key,

decrypts the encryption first key using the second key to obtain the first key, and

decrypts the encrypted data signal using the obtained first key to extract the data signal with superimposed digital watermark.

10. A data signal playback apparatus as described in claim 8, comprising a drive device containing the reader, encryption state detector, type detector, and a first authentication unit;

a decoder containing the decryption unit, digital watermark decoder, playback controller, and a second authentication unit; and

an interface connecting the drive device and decoder;

wherein the first authentication unit and second authentication unit communicate through the interface, the first authentication unit verifies if the decoder is a compliant device, and the second authentication unit verifies if the drive device is a compliant device; and

the playback controller permits data signal playback when authentication by the first authentication unit and the second authentication unit is successful.

11. A data signal playback apparatus as described in claim 10, wherein the data storage medium further records a first authentication key and a second authentication key

used respectively by the first authentication unit and second authentication unit;

the first authentication unit has a first device key assigned specifically to the drive device, and generates a first media authentication key based on the first authentication key, first device key, and data storage medium type detected by the type detector;

the second authentication unit has a second device key assigned specifically to the decoder, and generates a second media authentication key based on the second authentication key and second device key; and

the first authentication unit and second authentication unit compare the first media authentication key and the second media authentication key for authentication.

12. A data signal playback apparatus as described in claim 11, wherein the second authentication unit detects the data storage medium type using at least one of an authentication process and data signal transmission procedure that differs for each data storage medium type.

13. A data signal recording apparatus for recording a copy-controlled data signal to a data storage medium, comprising:

a digital watermark processor for superimposing to the data signal as a digital watermark identification data identifying the data signal as an encrypted signal;

an encryption unit for generating an encrypted data signal by encrypting the data signal to which the digital watermark processor superimposed a digital watermark; and

a writer for writing the encrypted data signal generated by the encryption unit to the data storage medium.

14. A data signal recording apparatus as described in claim 13, further comprising a type detector for detecting a data storage medium type;

wherein the digital watermark further contains type data detected by the type detector indicating a type of data storage medium recording the encrypted data signal.

15. A data signal recording apparatus as described in claim 14, further comprising a digital watermark decoder for extracting the digital watermark superimposed to the data signal and detecting the content indicated by the identification data; and

a recording controller for permitting recording based on the identification data detected by the digital

watermark decoder.

16. A data signal recording apparatus as described in claim 15, comprising a drive device containing the writer, type detector, and a first authentication unit;

an encoder containing the encryption unit, digital watermark processor, digital watermark decoder, recording controller, and a second authentication unit; and

an interface connecting the drive device and encoder;

wherein the first authentication unit and second authentication unit communicate through the interface, the first authentication unit verifies if the encoder is a compliant device, and the second authentication unit verifies if the drive device is a compliant device; and

the recording controller permits data signal recording when authentication by the first authentication unit and the second authentication unit is successful.

17. A data signal recording apparatus as described in claim 16, wherein the data storage medium further records a first authentication key and a second authentication key used respectively by the first authentication unit and second authentication unit;

the first authentication unit has a first device key

assigned specifically to the drive device, and generates a first media authentication key based on the first authentication key, first device key, and data storage medium type detected by the type detector;

the second authentication unit has a second device key assigned specifically to the encoder, and generates a second media authentication key based on the second authentication key and second device key; and

the first authentication unit and second authentication unit compare the first media authentication key and the second media authentication key for authentication.

18. A data signal recording apparatus as described in claim 17, wherein the second authentication unit detects the data storage medium type using at least one of an authentication process and data signal transmission procedure that differs for each data storage medium type.

19. A data signal recording apparatus as described in claim 13, wherein the data storage medium further records a second key encrypted with a third key assigned specifically to the data signal recording apparatus;

the encryption unit obtains the first key based on any of random numbers internally generated by the

encryption unit, the first key recorded to the data storage medium, and first key data superimposed to a radio wave, and encrypts the data signal with superimposed digital watermark using the first key,

encrypts the first key using the second key; and

obtains the second key based on the third key and encrypted second key recorded to the data storage medium.

20. A data signal recording apparatus as described in claim 19, wherein the writer further writes the first key encrypted with the second key to the data storage medium.